

**P-18-0118 & 0119**

ChemName: - [REDACTED]

CASNo.: [REDACTED]

CASNo.: [REDACTED]

**Human Health Report Status:**

X	HAZARD DRAFT- Pending Review
X	HAZARD REVIEWED
x	HAZARD FINAL
x	RISK DRAFT- pending review
x	RISK REVIEWED
	RISK-FOCUS FINAL
	UPDATED DRAFT
x	UPDATED FINAL

**SAT Date:** - 03-06-2018

**SAT Chair:** - William Irwin

**HH Hazard Assessor (A):** - Sailesh Surapureddi

**HH Hazard QC Reviewer (A):** - Susan Laessig

**HH Hazard QC Date (A):** - March 13, 2018

**Focus Date:** - March 15, 2018

**HH Risk Assessor (B):** - Sailesh Surapureddi

**HH Risk QC Reviewer (B):** - K Salazar

**HH Risk QC Date (B):** - March 14, 2018

# 1 HUMAN HEALTH SUMMARY

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EPA estimated the human health hazard of this chemical substance based on its estimated physical/chemical properties, available by comparing it to structurally analogous chemical substances for which there is information on human health hazard, and/or other structural information.

Based on the hazard determination and available qualitative risk information, EPA did not identify risks of concern for the PMN substance.

## Human Health Hazard:

- Absorption with reaction all routes: absorption of the parent polymer is nil all routes and poor all routes for the low MW fractions based on p-chem properties of VP and water solubility.
- The hazards identified in the TSCA New Chemicals Category for diisocyanates ( $\text{MW} < 1000$ ) include: dermal and respiratory sensitization and pulmonary toxicity. Other hazards associated with isocyanates include: Irritation to all tissues, carcinogenicity and mutagenicity.
- Concern for lung surfactancy due to the polyether repeat units only if these are present in the low MW fractions.

## Human Health Risk:

- Risks for irritation and sensitization cannot be quantified due to lack of dose-response for these hazards. Exposures would be mitigated with use of appropriate PPE, including impervious gloves. EPA expects the PPE indicated in the Safety Data Sheet for the PMN substance, will be used by workers. Therefore, EPA does not expect risk for irritation and sensitization.
- Risks were not identified for general population for irritation and sensitization via drinking water since isocyanates are reactive in water thereby reducing the potential for sensitization.
- Risks to the general population via inhalation from stack air and fugitive air are unlikely since exposures through these media are not expected.
- Low MW fractions [REDACTED], so lung surfactancy due to the polyether repeat units were not evaluated for workers and general population.
- Risks to consumers were not assessed because consumer uses were not identified as conditions of use.

## Potentially Useful Information:

- Potentially useful information would inform understanding of skin sensitization.

## 2 HUMAN HEALTH HAZARD- PART A

### 2.1 Chemistry Summary:

CASRN: 146168-09-4

Structure:

PMN: P-18-0118	Submitter: H.B. Fuller Company	Manu. X	Import X
Max. PV (KG): 30000	Binding Option Marked:		
MW: [REDACTED]	% < 500 [REDACTED]	% <1000 [REDACTED]	CASNO [REDACTED]
[REDACTED]	Prop.	Meas.	Est.
	MP		
	BP		>400
	Pres.		at 760 mm Hg
	VP		<0.000001
	S-H2O		Reacts
	log P		
[REDACTED] Analogs:			
[REDACTED]			
[REDACTED] industrial adhesives		[REDACTED] other_uses	
[REDACTED]		[REDACTED]	
[REDACTED]		[REDACTED]	

PMN: P-18-0119		Submitter: H.B. Fuller Company		Manu.	Import
Max. PV (KG): 30000		Binding Option Marked:		X	X
MW:	% < 500	% < 1000	CASNO		
PMN Structure			Prop.	Meas.	Est.
			MP		
			BP		>400
			Pres.		at 760 mm Hg
			VP		<0.000001
			S-H2O		Reacts
			log P		
			Analog:		
USE: industrial adhesives			other_uses		
			No other uses found.		

## 2.2 Human Health Category:

1. Chemical Category: Not applicable
2. Chemical Category Health Concerns:
3. Category Testing Strategy:

## 2.3 SAT Summary:

### 2.3.1 PMN Health Rating:

1-2

### 2.3.2 SAT Key Words:

Sens Irr Lung-U

### 2.3.3 Absorption:

Absorption with reaction all routes (pchem). Absorption of the parent polymer is NIL all routes and poor all routes for the low MW fractions based on p-chem based on VP and water solubility

### 2.3.4 SAT Health Summary:

There are concerns for irritation and sensitization due to the isocyanate groups. There is an uncertain concern for lung surfactancy due to the polyether repeat units if they are in the low MW fractions.

[REDACTED]

**2.3.5 PMN Data:** (Study summary, POD)

N/A

**2.3.6 Analog Data:** (analog, structure, study summary, POD)

Analogs:

[REDACTED]

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(38) ANALOGS:			
PMN or CAS No.	Chem. Name	Structure	TSCA Y/N
[REDACTED]			

**2.3.7 Other Information:** (SDS, structural alert or component of interest, basis, etc.)

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Acute oral toxicity

silicon dioxide:  
Acute inhalation toxicity

STOT-repeated exposure

No data available

Aspiration toxicity

No data available

### 2.3.8 Exposure Routes of Interest:

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Route of Interest	
X	Inhalation:
X	Dermal:
X	Ingestion:

## 2.4 Point of Departure Selected and Basis

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1. No POD available for dermal sensitization concerns or oral routes of exposure (isocyanates expected to react in water).

### 3 HUMAN HEALTH RISK (PART B)

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#### 3.1 USES and EXPOSURES:

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##### 3.1.1 Uses

industrial adhesives .

##### 3.1.2 Worker Exposure

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###### 3.1.2.1 Inhalation

Negligible (VP<0.001 tor)

###### 3.1.2.2 Dermal

Mfg and Application: Potential dose rate: 1.2E+3mg/day over 250 days of (application site)

##### 3.1.3 General Population Exposure:

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###### 3.1.3.1 Drinking Water:

ADR as high as 2.09E-04 mg/kg/day

###### 3.1.3.2 Fish:

Bioconcentration factor is negligible

###### 3.1.3.3 Air/Inhalation

No releases to air based on information provided by submitter

##### 3.1.4 Consumer Exposure

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Consumer uses were not expected.

#### 3.2 RISK CALCULATIONS:

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##### 3.2.1 Worker Calculations:


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- Irritation and sensitization hazards identified for workers. Dose-response data not available for these hazard endpoints, so risks were not quantified. Exposures would be mitigated with use of appropriate PPE, including impervious gloves. EPA expects the PPE indicated in the Safety Data Sheet for the PMN substance, will be used by workers. Therefore, EPA does not expect risk for irritation and sensitization.

##### 3.2.2 General Population Calculations:

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Risks were not identified for general population for irritation and sensitization via drinking water since isocyanates are reactive in water thereby reducing the potential for sensitization.

### **3.2.3 Consumer Calculations:**

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Risks to consumers were not assessed because consumer uses were not identified as conditions of use.